Marshall Space Flight Center

Civil Service Employees

Performance Evaluation Profile (PEP) System Safety Survey Results

June 2000

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PEP SURVEY RATING SYSTEM EXPLANATION

- RATINGS OF 1 - 5 CONSISTENT WITH PEP OCCUPATIONAL SAFETY SURVEY RATING SYSTEM
- DEFINITIONS
  - Level 1 - No program or ineffective program
  - Level 2 - Developmental program
  - Level 3 - Basic program. Represent minimal acceptable compliance level.
  - Level 4 - Superior program. Indicative of programs that have a planned strategy for continuous improvement and a goal of achieving an outstanding program level.
  - Level 5 - Outstanding program. Indicative of programs that are comprehensive and are successful in identifying and reducing program hazards.

PEP SURVEY RATING SYSTEM EXPLANATION

- MANAGER'S SURVEY
  - Measures the intended level of implementation of the safety program
  - Each level on survey (Level 3, 4, or 5) provides a "roadmap" of the content of a safety program for a basic, superior, or outstanding program
- EMPLOYEE'S SURVEY
  - Measures the actual level of implementation of the safety program in the workplace
  - A "gap" of one integer or more on the Employee-Manager data plot indicates a communication problem between management and employees for the element in which the "gap" occurs

EMPLOYEE – MANAGEMENT PLOTS

A plot of the scores for each of the fourteen elements are shown for:

1. Employees
2. Managers
3. Overall Center

The employee and manager plots should be compared to determine consistency between the employee and manager view of their safety program. A score deviation greater than one integer indicates a communication problem between management and employees for the element in which the deviation occurs.

The overall center average is provided to allow the organization to determine how they compare to their center.

“Check” and the average score are used to flag any data point on the employee plot that is less than 3.0.

MORT ANALYSIS LEGEND

Number inside the circle or hexagonal corresponds to the question number on the survey.

Number below the circle or hexagonal is the average of all responses to that question.

Questions with average response scores less than 3.0 are flagged (colored) and designated “Check”.

GET WELL PLAN

The Get Well Plan should be used in conjunction with the MORT Chart. Any question flagged on the MORT Chart as having an average response score less than 3.0 will result in a corresponding corrective action recommendation in the Get Well Plan. These recommendations were derived from the source documents used to develop the survey and are intended to guide the organization in developing a plan to improve weak areas in their safety program.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Rolled up to Center Level

Organization: Rolled up to Center Level

Period: May,2000

System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Wednesday, June 28, 2000

For Period May,2000 **Supported Nasa Organization:** All NASA Organizations.

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Engineering Directorate	3.5	3.4	3.4	3.0	3.5	3.0	2.9	3.3	2.9	2.6	3.4	3.1
Flight Projects Directorate	3.7	3.6	3.7	3.2	3.8	3.3	3.0	3.2	3.1	2.9	3.5	3.1
Safety and Mission Assurance	3.7	3.8	3.8	3.5	3.9	3.5	3.2	3.7	3.6	2.8	3.8	3.6
Space Shuttle Projects Office	4.3	4.3	4.4	4.2	4.2	4.0	3.7	4.0	3.7	3.4	4.0	3.8
Space Transportation Directorate	3.5	3.4	3.4	3.3	3.5	3.0	2.7	3.2	3.1	2.5	3.3	3.3
12 Element Avg.	**3.6**	**3.5**	**3.6**	**3.2**	**3.6**	**3.1**	**3.0**	**3.4**	**3.1**	**2.7**	**3.5**	**3.2**
4 Element Avg.		**3.6**		**3.4**				**3.3**				**3.2**
Overall Score	**3.4**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Wednesday, June 28, 2000

For Period May,2000 **Supported Nasa Organization:** All NASA Organizations.

	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
PEP Score for Manager	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Engineering Directorate	3.8	4.0	4.1	3.6	4.0	3.6	4.1	4.1	3.1	3.4	3.8	3.5
Flight Projects Directorate	4.4	4.2	3.9	3.6	3.4	3.9	3.9	3.6	3.1	3.1	3.7	2.4
Safety and Mission Assurance	4.4	4.0	4.2	3.6	4.2	4.0	3.4	4.2	3.4	3.4	3.4	3.5
Space Shuttle Projects Office	5.0	5.0	5.0	4.0	5.0	5.0	4.5	5.0	3.5	3.5	4.5	4.5
Space Transportation Directorate	4.3	4.8	5.0	3.8	4.3	4.0	4.0	4.3	4.0	3.5	4.0	3.7
12 Element Avg.	**4.2**	**4.2**	**4.2**	**3.6**	**4.0**	**3.9**	**4.0**	**4.1**	**3.3**	**3.3**	**3.8**	**3.2**
4 Element Avg.		**4.2**		**3.9**				**4.0**				**3.4**
Overall Score	**3.8**											

By: Civil Service Only

System Safety PEP Employee Submittals

Marshall Space Flight Center

Organization	Number of Assigned ID	Number of Valid Submitted ID	Percentage Valid Submitted ID
Nasa Organization: Engineering Directorate			
Engineering Directorate	644	237	37
Nasa Organization: Flight Projects Directorate			
Flight Projects Directorate	228	80	35
Nasa Organization: Safety and Mission Assurance			
Safety and Mission Assurance	92	30	33
Nasa Organization: Space Shuttle Projects Office			
Space Shuttle Projects Office	105	24	23
Nasa Organization: Space Transportation Directorate			
Space Transportation Directorate	399	42	11

System Safety PEP Manager Submittals

Marshall Space Flight Center

Organization	Number of Assigned ID	Number of Valid Submitted ID	Percentage Valid Submitted ID
Nasa Organization: Engineering Directorate			
Engineering Directorate	48	15	31
Nasa Organization: Flight Projects Directorate			
Flight Projects Directorate	19	10	53
Nasa Organization: Safety and Mission Assurance			
Safety and Mission Assurance	10	5	50
Nasa Organization: Space Shuttle Projects Office			
Space Shuttle Projects Office	17	2	12
Nasa Organization: Space Transportation Directorate			
Space Transportation Directorate	29	4	14

System Safety PEP Comments for Employees

Marshall Space Flight Center

6/14/00	There should be a task category for Safety and Mission Assurance
6/14/00	Risk assessment as implemented includes technical, schedule, and cost risks. Hazard analysis includes all postulated hazards, and includes evaluation of controls for those hazards that cannot be eliminated.
6/14/00	I do not understand how these questions would apply to a ground system software development project. I probably need training as to how these questions specifically relate, or don't relate, to my specific project.
6/15/00	These questions do not really fit my job.
6/15/00	This survey had two deficiencies. One is that I support 8 eight projects, each project may have different survey answers. Also, my projects relate to new space transportation system design, a catagory not listed in project list.
6/15/00	Question 26 is very confusing. I have never heard of a system safety specification. (Is this system safety requires?) S&MA representative never heard of either.
6/16/00	It is difficult to know what Program Management does and does not do, which is what part of the survey is asking. ISS Program Management is at JSC and I do not have a lot of interaction with them.
6/19/00	Some of these were very hard to answer because it was unclear as to the meaning of hazard assessments- flight hardware design and operation? personnel job hazards? ground operations hazards? all ? part of these?
6/19/00	I know about my piece of the ISS and what our safety and hazard requirements and compiance program is, but not sure about the program level ISS requirements and the safety and hazard requirements put in place at JSC (the ISS program managers).
6/19/00	There is no Safety Civil Servant assigned to the X-38 Project. That is likely to result in not accomplishing the safety requirements imposed by MSFC on this project. S&MA has been unresponsive in addressing this matter.
6/21/00	Program Category, these catagories could have used some description Task Category, several of these apply to my position. I should have been allowed to select all applicable tasks.

System Safety PEP Comments for Employees

6/21/00	My participation in Shuttle Operations started only recently, and is limited to development of an experimental flight system payload. A large number of "don't know's" are the result.
6/21/00	MSFC is a SAFE place to work!
6/21/00	I probably am not the one to take this particlar survey to obtain the required results.
6/21/00	I am a new employee and I have not had time to become fully integrated in all aspects of safety training and awareness requirements.
6/21/00	I work on a number of programs. The large programs all have the formal safety and hazard databases. The smaller programs may or may not have the closed-loop problem tracking system, but they still have safety analysis and reviews/technical exchange meetings to identify and mitigate any problems.
6/21/00	this project has become more aware of safety & risk in last couple months and is working to improve past mistakes
6/22/00	I am a disipline engineer working a multitude of programs. The questions in this survey refer to "THIS PROGRAM" assuming that I am working on only one program. Program A may be a STRONGLY DISAGREE while Program B may be a TOTALLY AGREE. With that in mind, I answered the question in a general manner, sort of an average of the programs that I work. Also, with Q 10, the definition of INSIGHT vs OVERSIGHT does not agree with the definitions that my organization has been using.
6/22/00	I do not work programmatic levels in my task.
6/22/00	This seems to be geared toward a specific project. I work in a test facility and deal with many projects. I can't comment on specific projects' safety programs.

6/22/00	A multitude of ISO safety procedures have been developed, and hardly anyone seems to be familiar with them. Why do we initiate so much paper, but not follow through with implementation? It would be better to have 15 procedures that employees know and follow than to have 1500 procedures that most employees have never seen. The inordinate amount of attention placed on "silly" safety activities: i.e. safety bowls, mascots, etc., seems to make safety appear trivial.
6/23/00	only been here for 20 days
6/23/00	The questions were answered in the context of supporting a program/project during the requirements definition, design development, fabracation/assembly, and testing phases. The responses do not cover the support organizations safety hazard control for people protection from injuries. I expect organzations to implement safety controls (OSHA) associated with employees work. The hazards associated with the project end item, gse and operation have be reviewed in accordance with the 1700 safety requirements and common sence values. My assumption that even though projects/programs may not hazard analysis (fmea, fault...), I will identify any problem to the project for resolution.
6/25/00	The International Space Station has been designed with areas that are only single fault tolerant to a catastrophic loss of crew or vehicle because of budget and/or schedule contraints! In some cases, 2 FT cannot be met for new hardware to be supplied to ISS because of the ISS design decision that have been made. The attitude of that's the way it is has permeated the system within the ISS design area at JSC.
6/26/00	SAFETY, QUALITY, AND RELIABILITY FROM THE CIVIL SERVICE ARE NOT ADE- QUATE. THERE ARE VERY FEW PERSONNEL TO COVER MANY PROJECTS. AS A PROJECT MANAGER I AM NOT SATISFIED WITH THE COVERAGE FROM MSFC PERSONNEL.
6/26/00	I agree that necessary precautions and safety analysis are critical in any program/project, but there is a tendency for management to go overboard and hinder the hardware portion of the project with extreme safety requirements. If each person involved felt personal responsibility for their portion of program/project the safety/hazard requirements can be reduced and the efficiency of the program/project will increase drastically. This can be resolved with management involvement from start to end of the program/project.

6/27/00	26. We do not have a system safety spec. per se in the program I am on, it is imbedded in the requirements. 38 & 39. We have had no mishaps thus far, but if we have one/some, this appears to be the way to handle them. 50 & 51. The system with which I work is very simple and essentially passive. It has no known chemical, toxic, fire, electrical, high pressure, etc. hazards. hazards

System Safety PEP Comments for Managers

Marshall Space Flight Center

6/21/00	Have a very proactive and evolving safety program.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Engineering Directorate

Organization: Engineering Directorate

Period: May,2000

System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Engineering Directorate

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Engineering Directorate	3.5	3.4	3.4	3.0	3.5	3.0	2.9	3.3	2.9	2.6	3.4	3.1
12 Element Avg.	**3.5**	**3.4**	**3.4**	**3.0**	**3.5**	**3.0**	**2.9**	**3.3**	**2.9**	**2.6**	**3.4**	**3.1**
4 Element Avg.		**3.4**		**3.2**				**3.2**				**3.1**
Overall Score	**3.3**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Engineering Directorate

PEP Score for Manager	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Engineering Directorate	3.8	4.0	4.1	3.6	4.0	3.6	4.1	4.1	3.1	3.4	3.8	3.5
12 Element Avg.	**3.8**	**4.0**	**4.1**	**3.6**	**4.0**	**3.6**	**4.1**	**4.1**	**3.1**	**3.4**	**3.8**	**3.5**
4 Element Avg.		**3.9**		**3.9**				**4.0**				**3.4**
Overall Score	**3.8**											

By: Civil Service Only

Marshall Space Flight Center

System Safety PEP MORT Chart

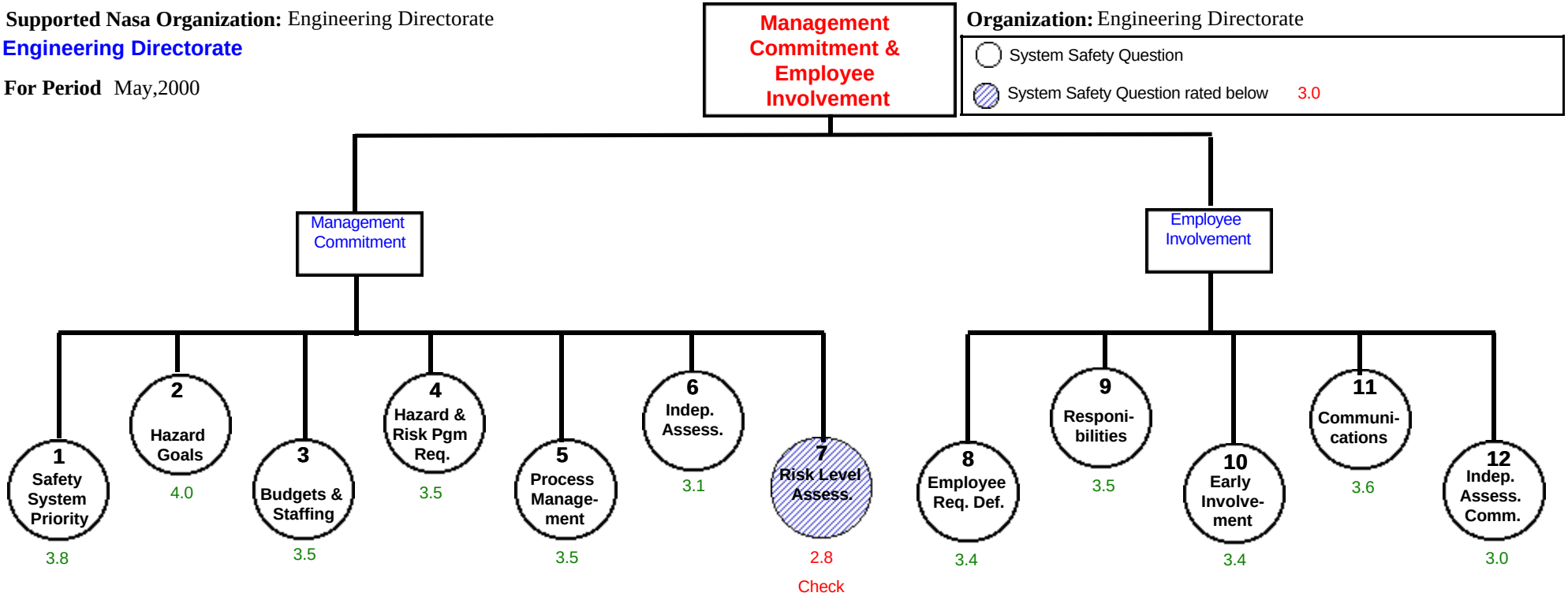
Saturday, July 01, 2000

Supported Nasa Organization: Engineering Directorate

Engineering Directorate

For Period May,2000

Organization: Engineering Directorate



Marshall Space Flight Center

System Safety PEP MORT Chart

Saturday, July 01, 2000

Supported Nasa Organization: Engineering Directorate

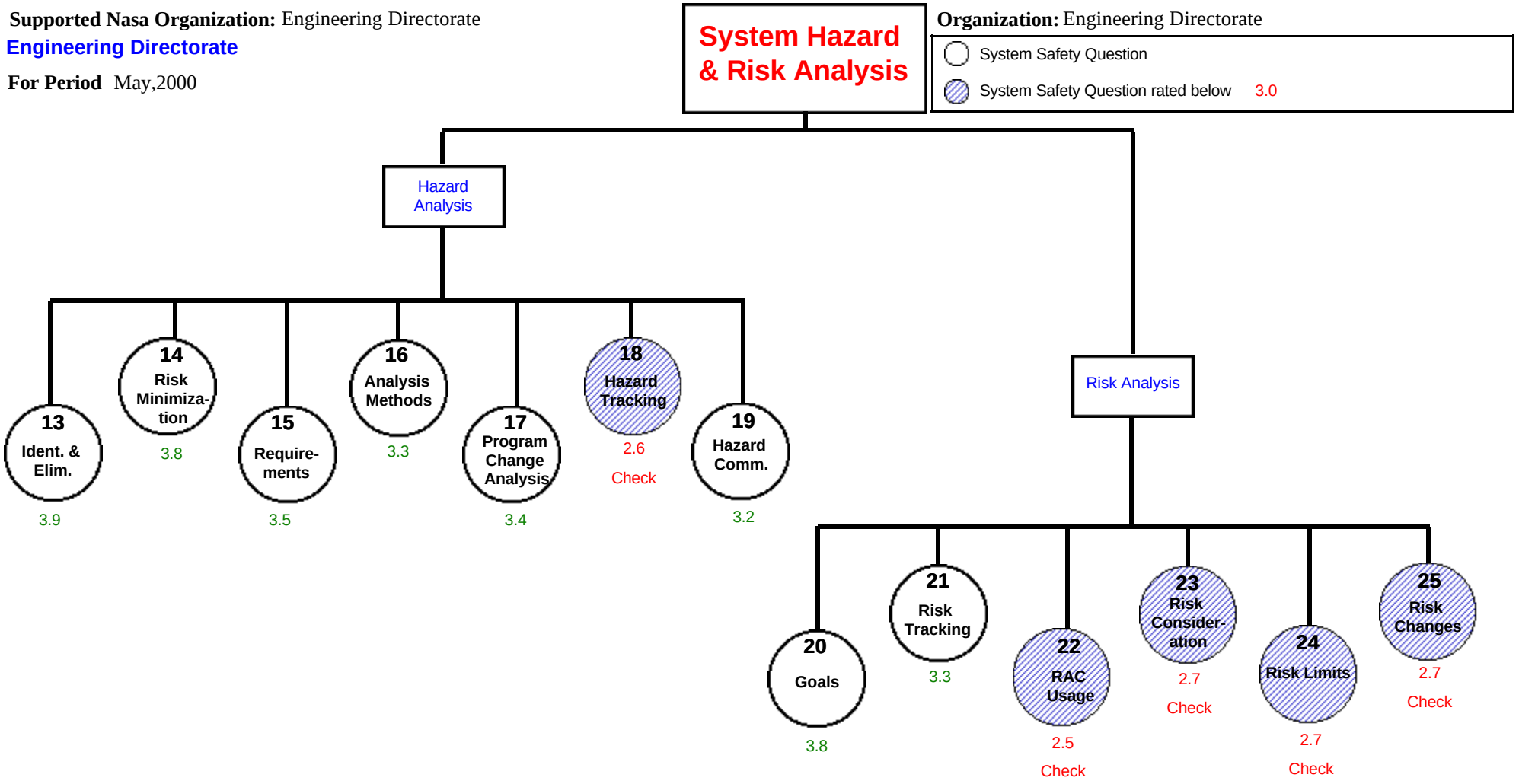
Engineering Directorate

For Period May,2000

Organization: Engineering Directorate

System Safety Question

System Safety Question rated below 3.0



System Safety PEP MORT Chart

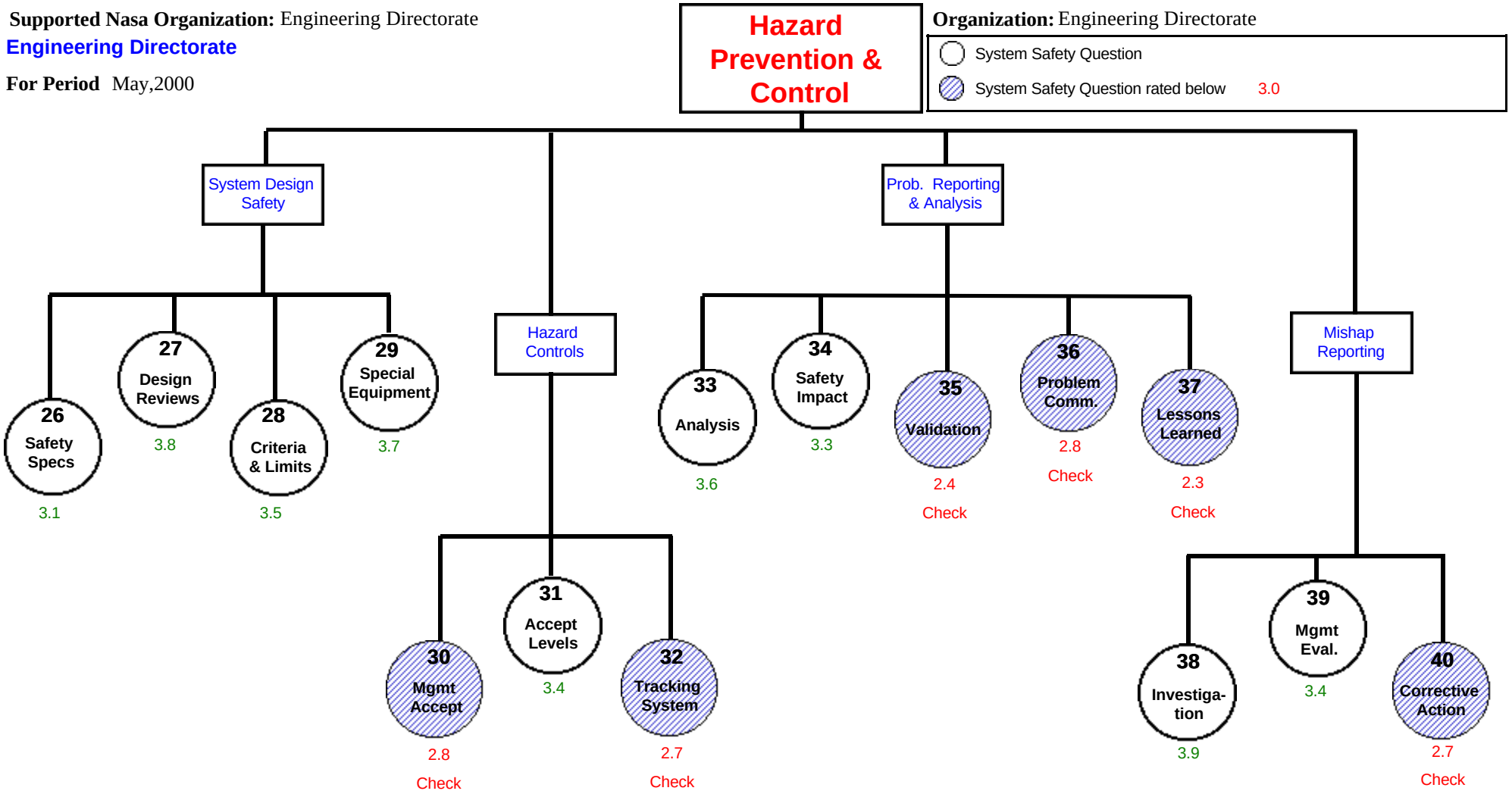
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Engineering Directorate

Engineering Directorate

For Period May,2000



System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Engineering Directorate

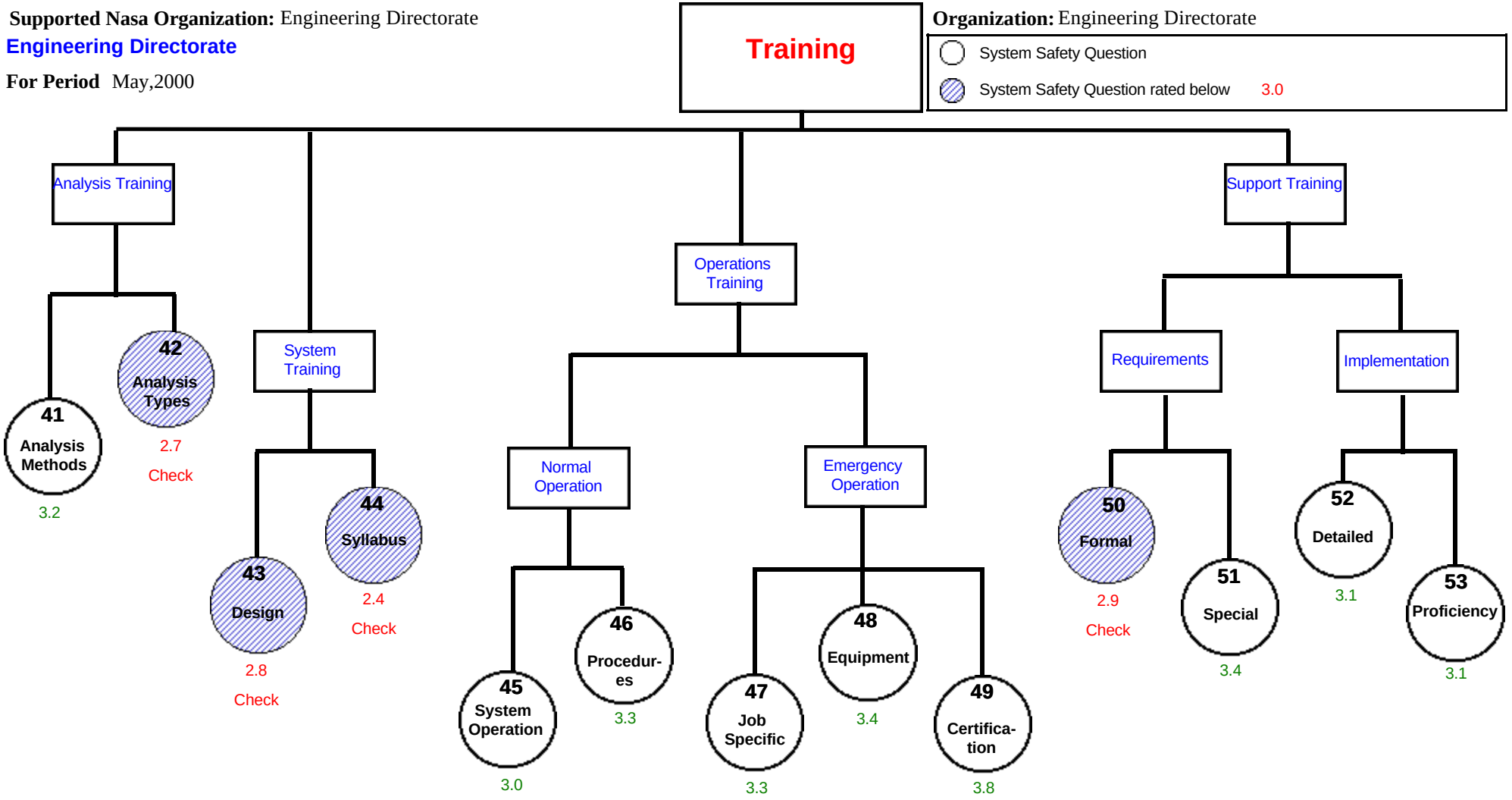
Engineering Directorate

For Period May,2000

Organization: Engineering Directorate

System Safety Question

System Safety Question rated below 3.0



Get Well Plan for All Categories

Marshall Space Flight Center

For Period May,2000

Supported Nasa Organization: Engineering Directorate

Organization: Engineering Directorate

Engineering Directorate

Recommendations for improvement on your existing Safety and Health Program for

Questions rated below 3.0

MANAGEMENT COMMITMENT & EMPLOYEE INVOLVEMENT

MANAGEMENT COMMITMENT

Q 7 - (NPG 7120.5a, para. 1.3.d, & 4.2)(NPG 8715, para. 3.5.1.6) Decisions regarding acceptance of residual hazards shall be made only by program management and based on an assessment of the risk involved.

SYSTEM HAZARD AND RISK ANALYSIS

HAZARDS ANALYSIS

Q 18 - (NPG 8715, para. 3.5.2.6 & 3.10.1)(MIL-STD 882C, para. 4.2.b) Maintain an up-to-date database of identified hazards throughout the life of the program.

RISK ANALYSIS

Q 22 - (NPG 8715, para. 3.6.1)(MIL-STD 882C, para. 4.5) Risk should be categorized by standard classifications of severity and liklihood of occurrence.

Q 23 - (NPG 8715, para. 3.3)(MIL-STD 882C, para. 4.2) Programmatic decisions utilize hazard and risk analyses as primary factors in the decision making process.

Q 24 - (NPG 8715, para. 3.3)(MIL-STD 882C, para. 4.2) Provide planning and decision-making safety analysis documentation to the appropriate levels of management.

Q 25 - (NPG 8715, para. 3.2.6)(MIL-STD 882C, para. 4.2) Changes to program safety standards, acceptable risk level definitions, or program safety policy should require program management approval.

HAZARD PREVENTION AND CONTROL

HAZARD CONTROLS

Q 30 - (NPG 8715, para. 3.5.1.6)(MIL-STD 882C, para. 4.1.1) Acceptance of residual hazards and their associated controls shall be the responsibility of program management.

Q 32 - (NPG 8715, para. 3.5.1.6 & 3.5.2.6)(MIL-STD 882C, para. 4.2.6) An up-to-date database, containing all identified hazards and hazard controls, shall be maintained throughout the program life cycle.

PROBLEM REPORTING AND ANALYSIS

Q 35 - Risk Assessment Code (RAC) levels assigned to hazards should be validated with actual data, where possible.

Q 36 - (NPG 8715, para. 3.3.4 & 3.3.5) An up-to-date problem tracking system should be provided to track all program problems and to expedite problem resolution and close-out.

Q 37 - (NPG 8715, para. 3.5.1.5)(MIL-STD 882C, para. 4.2.i) The NASA Lessons Learned Information System should be used to provide lessons learned information and analysis.

MISHAP REPORTING

Q 40 - (NPG 8715, para. 3.3.4) A mishap reporting tracking system should be provided to track mishap histories and to expedite incorporation of corrective actions.

TRAINING

ANALYSIS TRAINING

Q 42 - (NPG 8715, para. 4.5)(NPD 1000.1) SMA management should support safety training and career development efforts.

SYSTEM TRAINING

Q 43 - (NPG 8715, para. 4.5) Program personnel should have sufficient training in system design and operation to allow an understanding of associated safety-related issues.

Q 44 - (NPG 8715, para. 4.5) Identification and documentation of required training should be provided to all personnel.

SUPPORT TRAINING

Q 50 - (NPG 8715, para. 4.5) Support personnel shoud have sufficient training in system operation to allow an understanding of associated safety-related issues.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Flight Projects Directorate

Organization: Flight Projects Directorate

Period: May,2000

System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Flight Projects Directorate

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Flight Projects Directorate	3.7	3.6	3.7	3.3	3.8	3.3	3.0	3.3	3.1	2.9	3.5	3.1
12 Element Avg.	**3.7**	**3.6**	**3.7**	**3.3**	**3.8**	**3.3**	**3.0**	**3.3**	**3.1**	**2.9**	**3.5**	**3.1**
4 Element Avg.		**3.7**		**3.5**				**3.4**				**3.2**
Overall Score	**3.5**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Flight Projects Directorate

PEP Score for Manager	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Flight Projects Directorate	4.4	4.2	3.9	3.6	3.4	3.9	3.9	3.6	3.1	3.1	3.7	2.4
12 Element Avg.	**4.4**	**4.2**	**3.9**	**3.6**	**3.4**	**3.9**	**3.9**	**3.6**	**3.1**	**3.1**	**3.7**	**2.4**
4 Element Avg.		**4.3**		**3.7**				**3.7**				**3.1**
Overall Score	**3.6**											

By: Civil Service Only

System Safety PEP MORT Chart

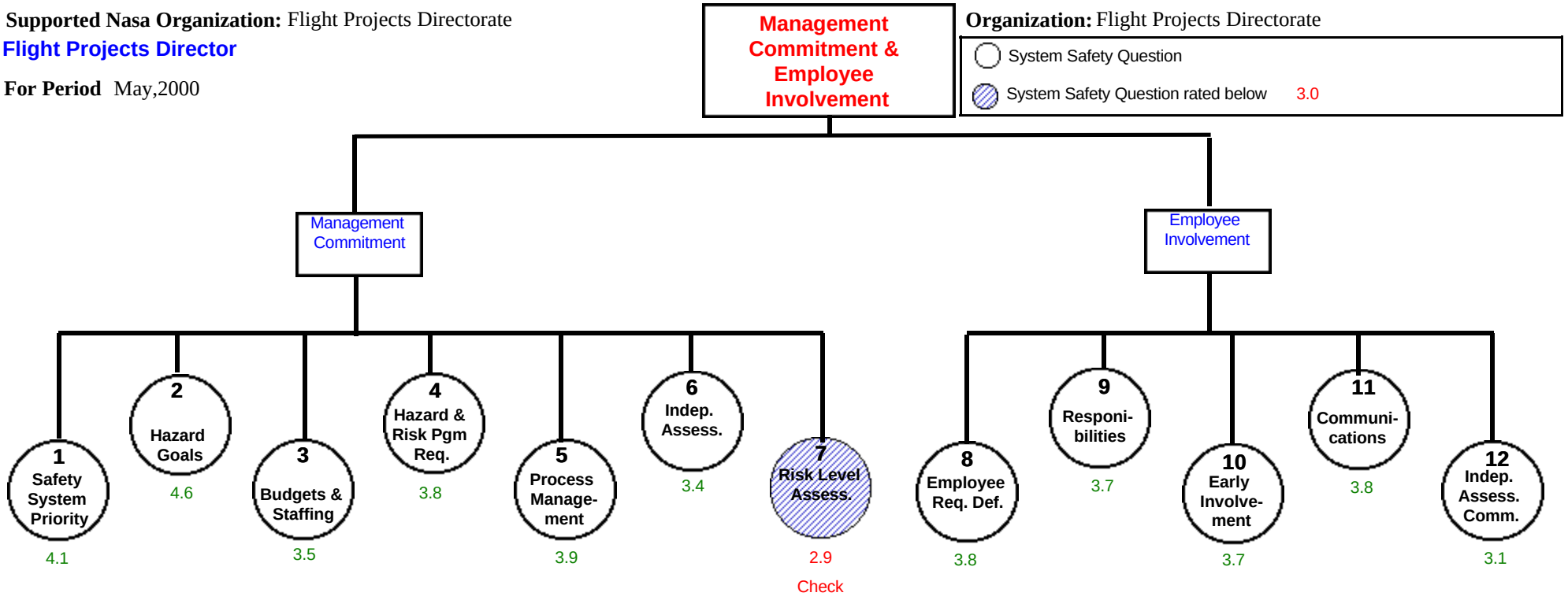
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Flight Projects Directorate

Flight Projects Director

For Period May,2000



System Safety PEP MORT Chart

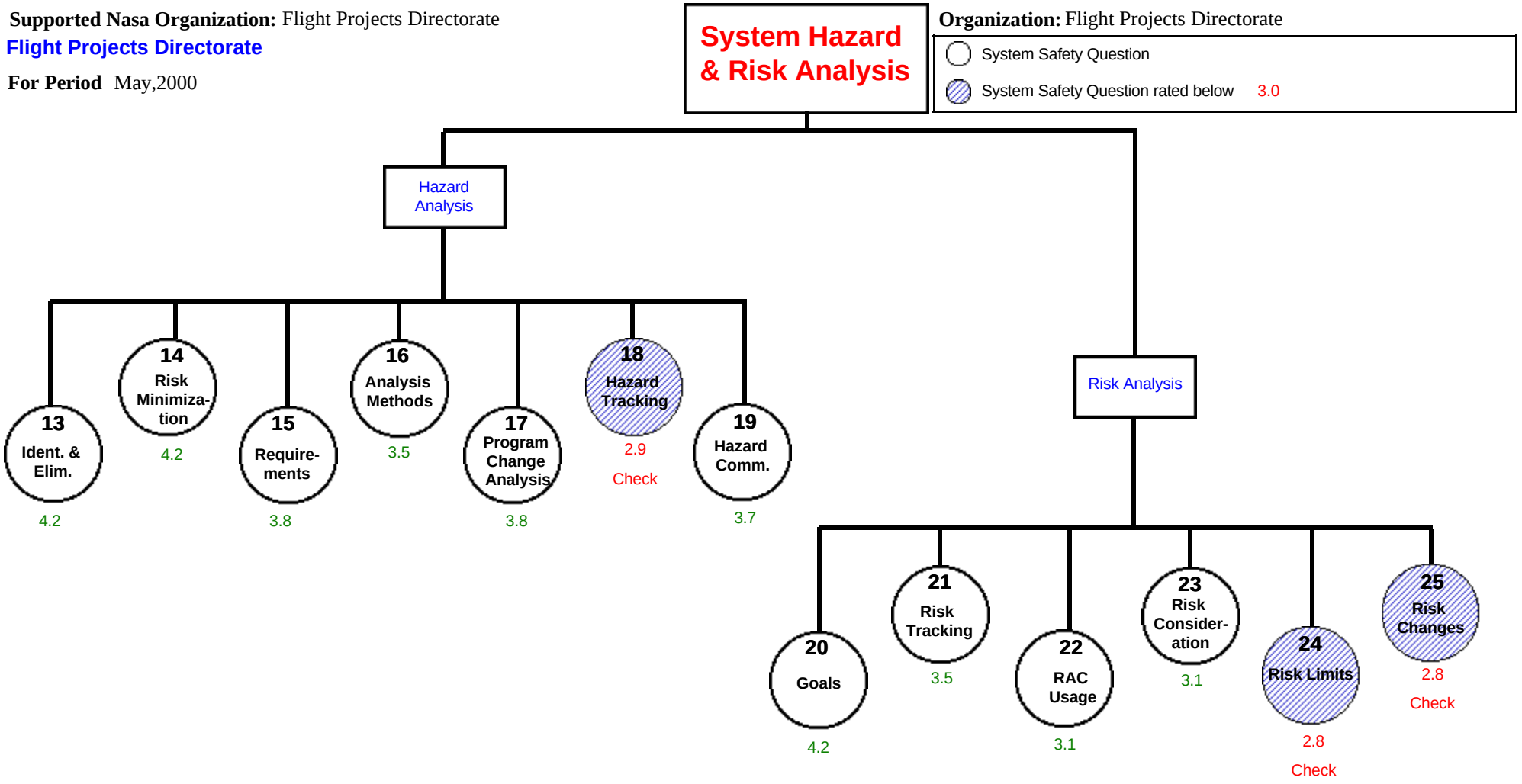
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Flight Projects Directorate

Flight Projects Directorate

For Period May,2000



System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Flight Projects Directorate

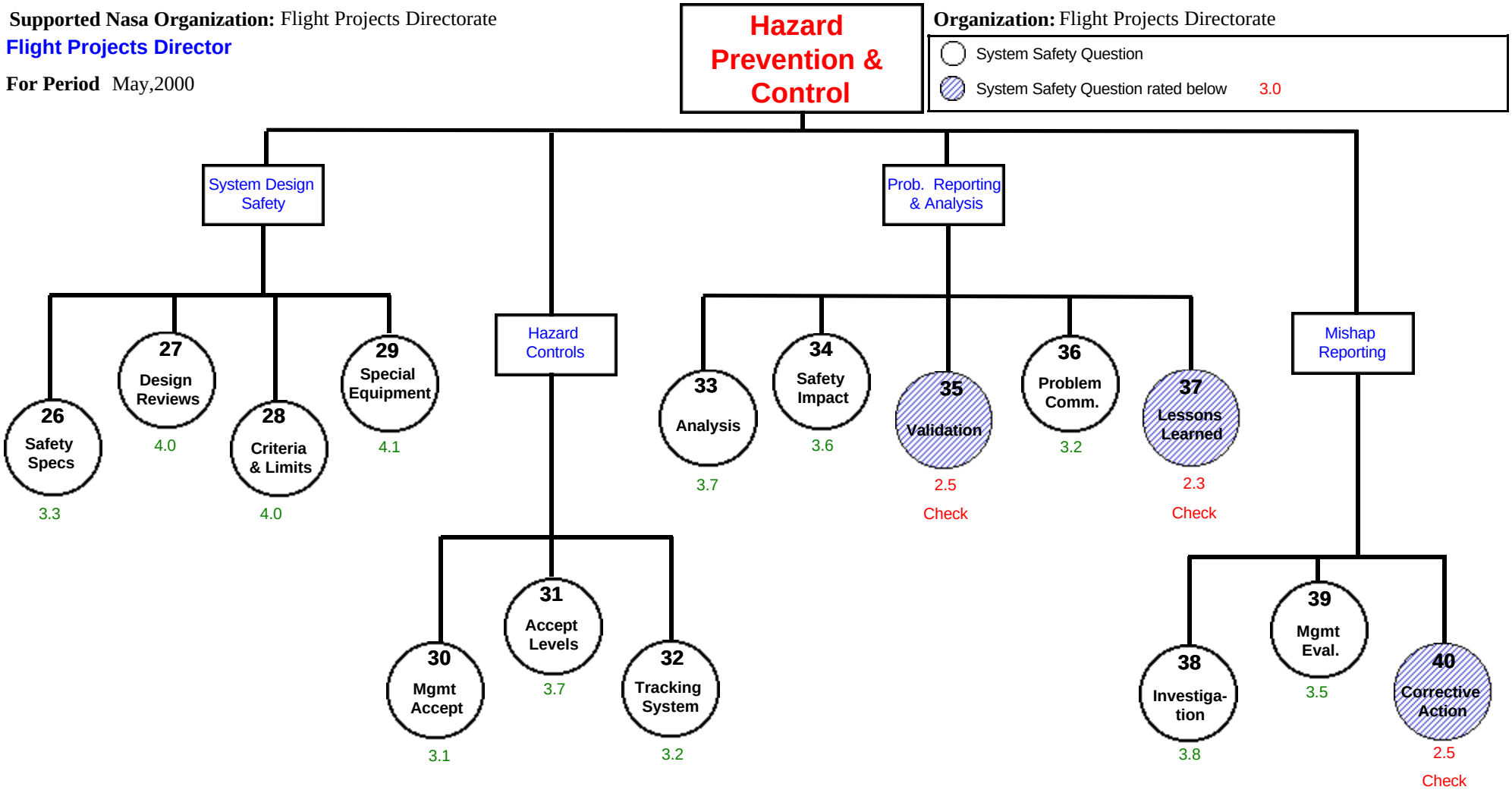
Flight Projects Director

For Period May,2000

Organization: Flight Projects Directorate

System Safety Question

System Safety Question rated below 3.0



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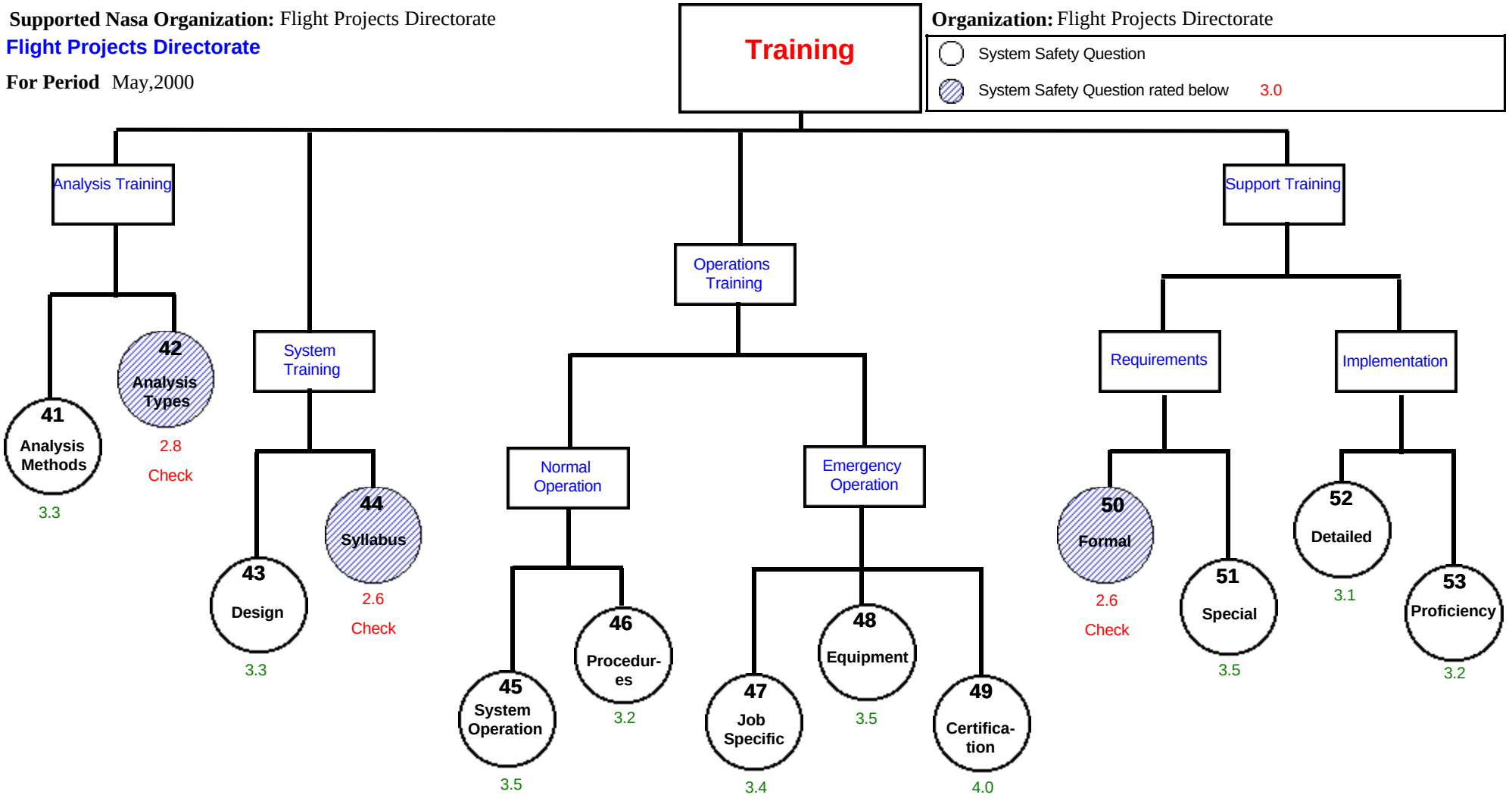
Saturday, July 01, 2000

Supported Nasa Organization: Flight Projects Directorate

Flight Projects Directorate

For Period May,2000

Organization: Flight Projects Directorate



System Safety Get Well Plan

Marshall Space Flight Center

For Period May,2000

Supported Nasa Organization: Flight Projects Directorate

Organization: Flight Projects Directorate

Flight Projects Directorate

Recommendations for improvement on your existing Safety and Health Program for

Questions rated below 3.0

MANAGEMENT COMMITMENT & EMPLOYEE INVOLVEMENT

MANAGEMENT COMMITMENT

Q 7 - (NPG 7120.5a, para. 1.3.d, & 4.2)(NPG 8715, para. 3.5.1.6) Decisions regarding acceptance of residual hazards shall be made only by program management and based on an assessment of the risk involved.

SYSTEM HAZARD AND RISK ANALYSIS

HAZARDS ANALYSIS

Q 18 - (NPG 8715, para. 3.5.2.6 & 3.10.1)(MIL-STD 882C, para. 4.2.b) Maintain an up-to-date database of identified hazards throughout the life of the program.

RISK ANALYSIS

Q 24 - (NPG 8715, para. 3.3)(MIL-STD 882C, para. 4.2) Provide planning and decision-making safety analysis documentation to the appropriate levels of management.

Q 25 - (NPG 8715, para. 3.2.6)(MIL-STD 882C, para. 4.2) Changes to program safety standards, acceptable risk level definitions, or program safety policy should require program management approval.

HAZARD PREVENTION AND CONTROL

PROBLEM REPORTING AND ANALYSIS

Q 35 - Risk Assessment Code (RAC) levels assigned to hazards should be validated with actual data, where possible.

Q 37 - (NPG 8715, para. 3.5.1.5)(MIL-STD 882C, para. 4.2.i) The NASA Lessons Learned Information System should be used to provide lessons learned information and analysis.

MISHAP REPORTING

Q 40 - (NPG 8715, para. 3.3.4) A mishap reporting tracking system should be provided to track mishap histories and to expedite incorporation of corrective actions.

TRAINING

ANALYSIS TRAINING

Q 42 - (NPG 8715, para. 4.5)(NPD 1000.1) SMA management should support safety training and career development efforts.

SYSTEM TRAINING

Q 44 - (NPG 8715, para. 4.5) Identification and documentation of required training should be provided to all personnel.

SUPPORT TRAINING

Q 50 - (NPG 8715, para. 4.5) Support personnel shoud have sufficient training in system operation to allow an understanding of associated safety-related issues.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Space Shuttle Projects Office

Organization: Space Shuttle Projects Office

Period: May,2000

System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Space Shuttle Projects Office

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Space Shuttle Projects Office	4.3	4.3	4.4	4.2	4.2	4.0	3.7	4.0	3.7	3.4	4.0	3.8
12 Element Avg.	**4.3**	**4.3**	**4.4**	**4.2**	**4.2**	**4.0**	**3.7**	**4.0**	**3.7**	**3.4**	**4.0**	**3.8**
4 Element Avg.		**4.3**		**4.3**				**4.0**				**3.8**
Overall Score	**4.1**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Space Shuttle Projects Office

PEP Score for Manager	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Space Shuttle Projects Office	5.0	5.0	5.0	4.0	5.0	5.0	4.5	5.0	3.5	3.5	4.5	4.5
12 Element Avg.	**5.0**	**5.0**	**5.0**	**4.0**	**5.0**	**5.0**	**4.5**	**5.0**	**3.5**	**3.5**	**4.5**	**4.5**
4 Element Avg.		**5.0**		**4.5**				**4.9**				**4.0**
Overall Score	**4.6**											

By: Civil Service Only

System Safety PEP MORT Chart

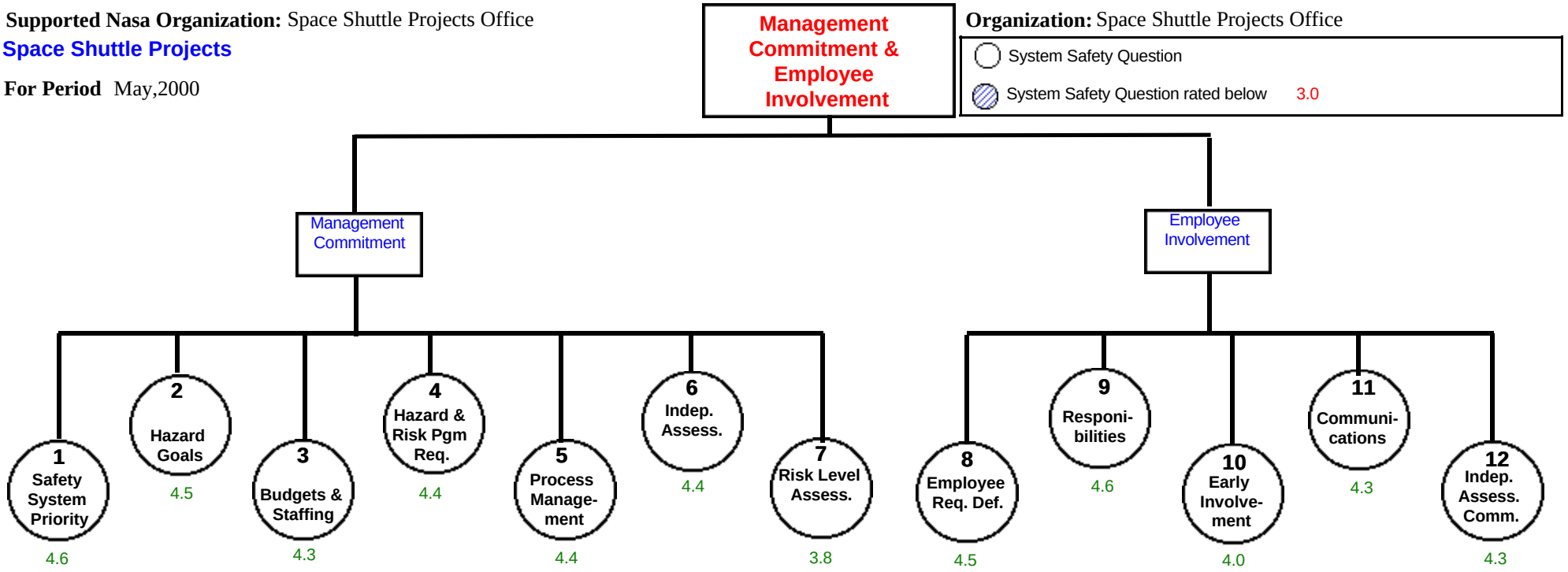
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Space Shuttle Projects Office

Space Shuttle Projects

For Period May,2000



Marshall Space Flight Center

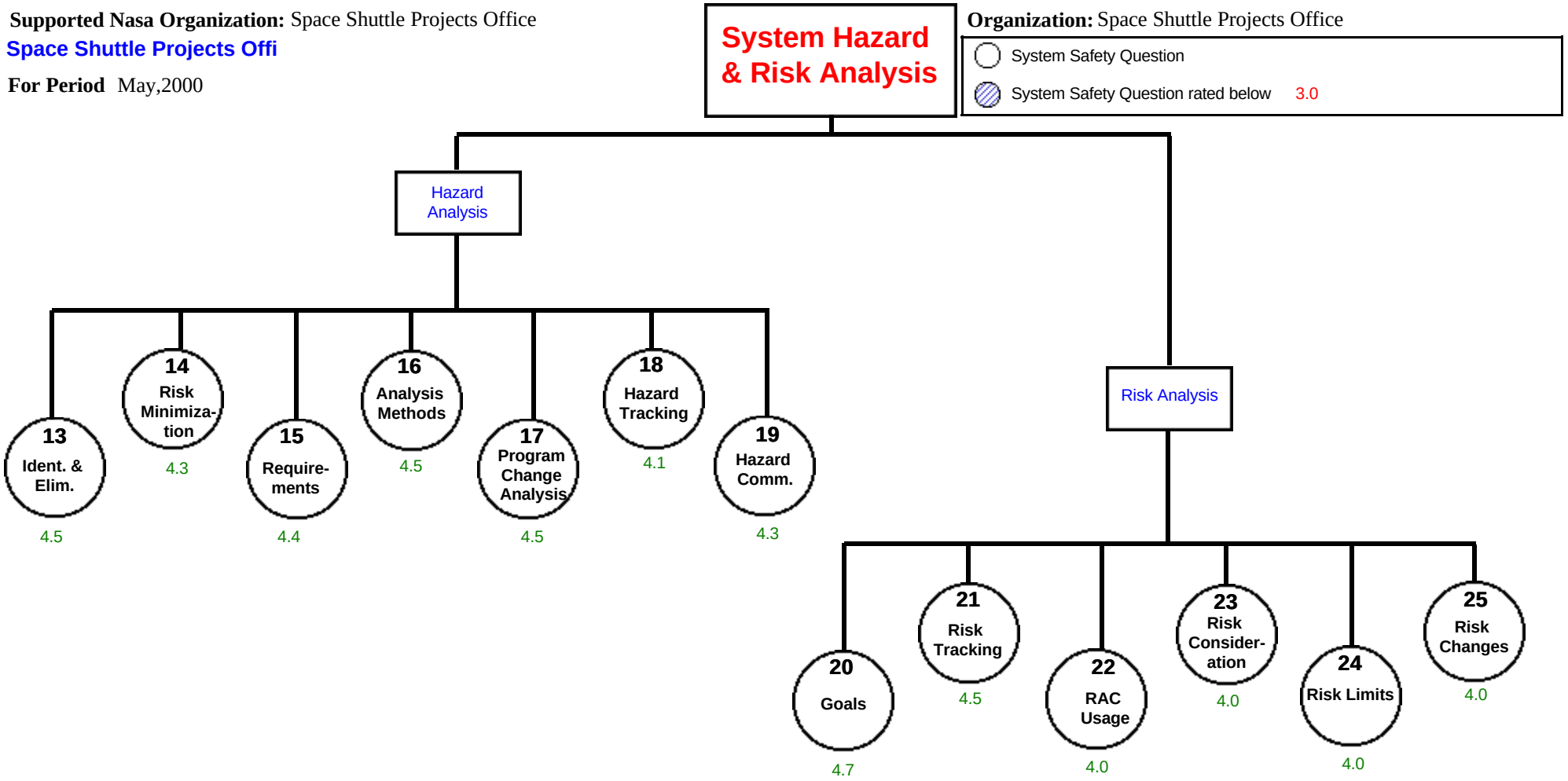
System Safety PEP MORT Chart

Saturday, July 01, 2000

Supported Nasa Organization: Space Shuttle Projects Office

Space Shuttle Projects Offi

For Period May,2000



System Safety PEP MORT Chart

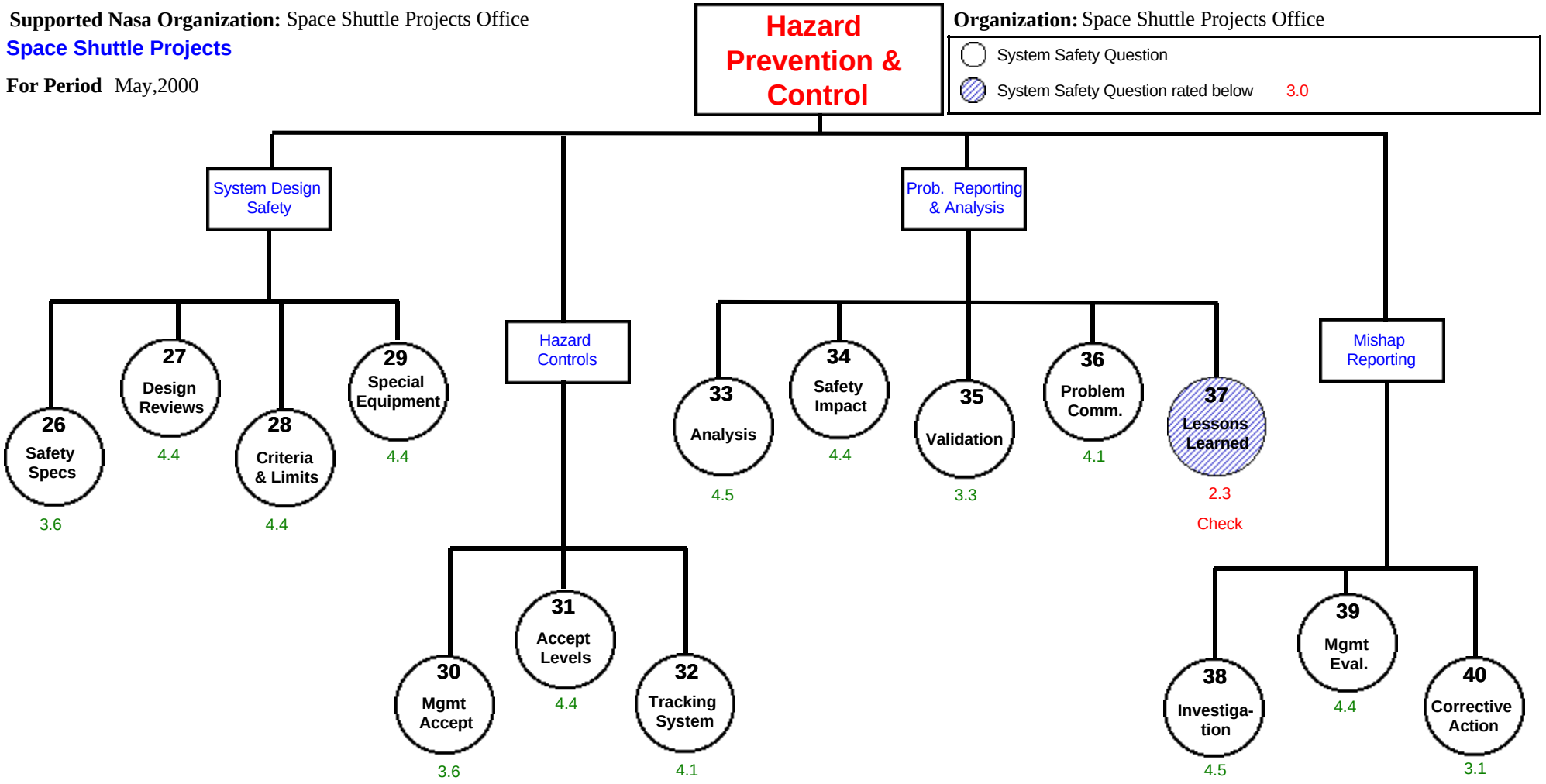
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Space Shuttle Projects Office

Space Shuttle Projects

For Period May,2000



System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Space Shuttle Projects Office

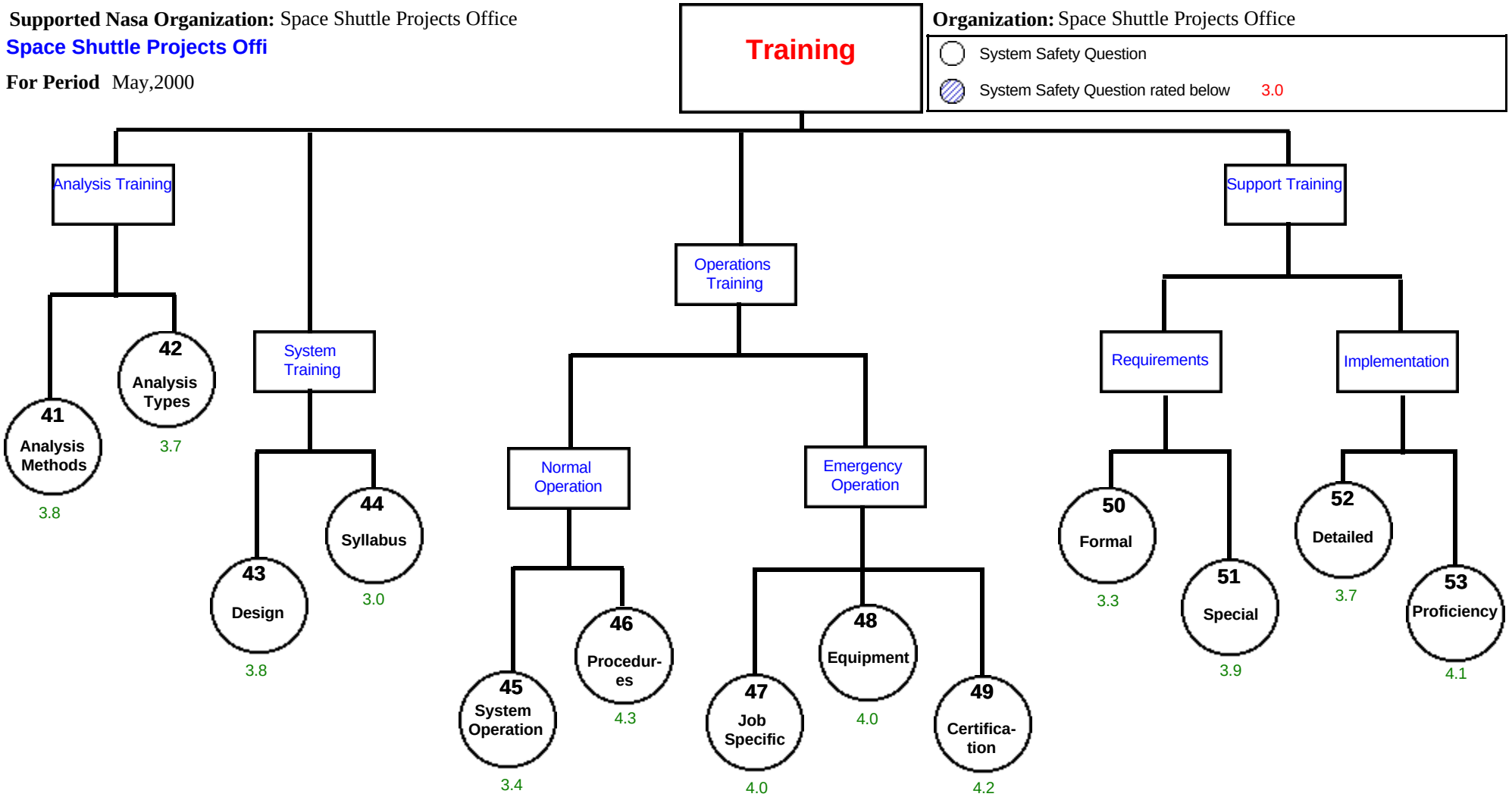
Space Shuttle Projects Offi

For Period May,2000

Organization: Space Shuttle Projects Office

System Safety Question

System Safety Question rated below 3.0



System Safety Get Well Plan

Marshall Space Flight Center

For Period
May,2000

Supported Nasa Organization: Space Shuttle Projects Office

Organization: Space Shuttle Projects Office

Space Shuttle Projects Office

Recommendations for improvement on your existing Safety and Health Program for

Questions rated below 3.0

HAZARD PREVENTION AND CONTROL

PROBLEM REPORTING AND ANALYSIS

Q 37 - (NPG 8715, para. 3.5.1.5)(MIL-STD 882C, para. 4.2.i) The NASA Lessons Learned Information System should be used to provide lessons learned information and analysis.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Safety and Mission Assurance

Organization: Safety and Mission Assurance

Period: May,2000

System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Safety and Mission Assurance

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Safety and Mission Assurance	3.7	3.8	3.8	3.5	3.9	3.5	3.2	3.7	3.6	2.8	3.8	3.6
12 Element Avg.	**3.7**	**3.8**	**3.8**	**3.5**	**3.9**	**3.5**	**3.2**	**3.7**	**3.6**	**2.8**	**3.8**	**3.6**
4 Element Avg.		**3.8**		**3.7**				**3.6**				**3.6**
Overall Score	**3.6**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Safety and Mission Assurance

PEP Score for Manager	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Safety and Mission Assurance	4.4	4.0	4.2	3.6	4.2	4.0	3.4	4.2	3.4	3.4	3.4	3.5
12 Element Avg.	**4.4**	**4.0**	**4.2**	**3.6**	**4.2**	**4.0**	**3.4**	**4.2**	**3.4**	**3.4**	**3.4**	**3.5**
4 Element Avg.		**4.2**		**3.9**				**4.0**				**3.4**
Overall Score	**3.8**											

By: Civil Service Only

Marshall Space Flight Center

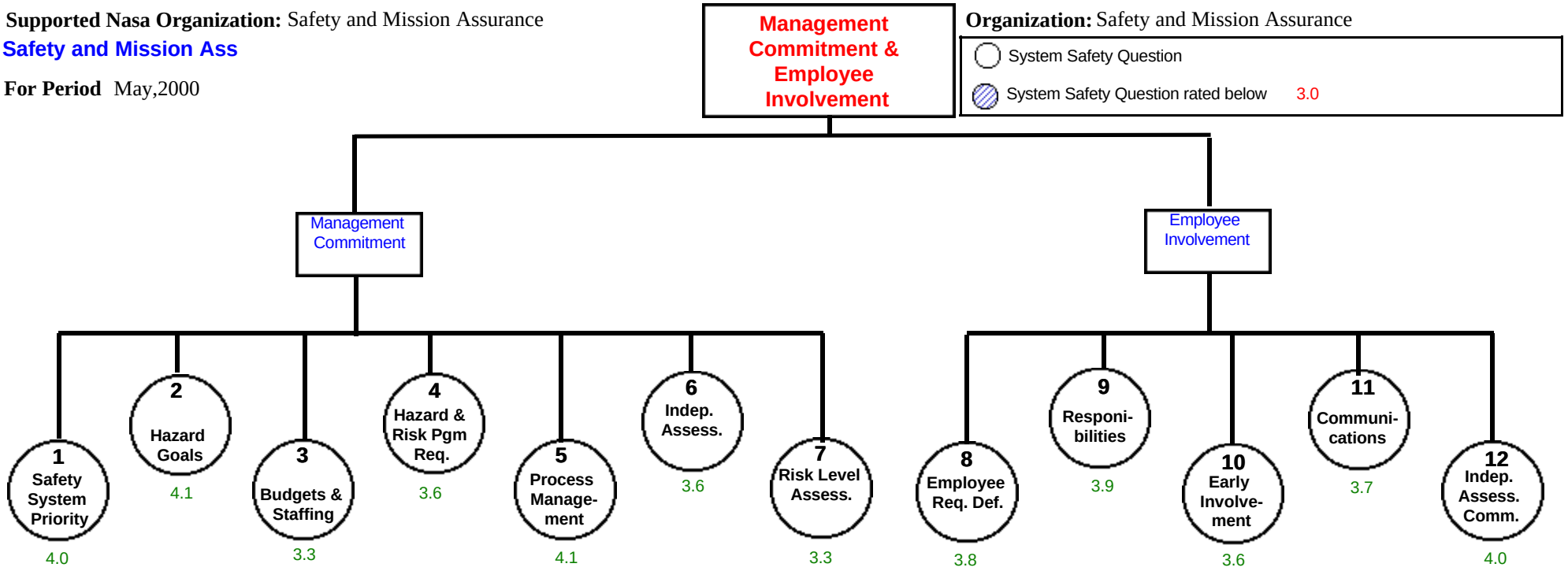
System Safety PEP MORT Chart

Saturday, July 01, 2000

Supported Nasa Organization: Safety and Mission Assurance

Safety and Mission Ass

For Period May,2000



Marshall Space Flight Center

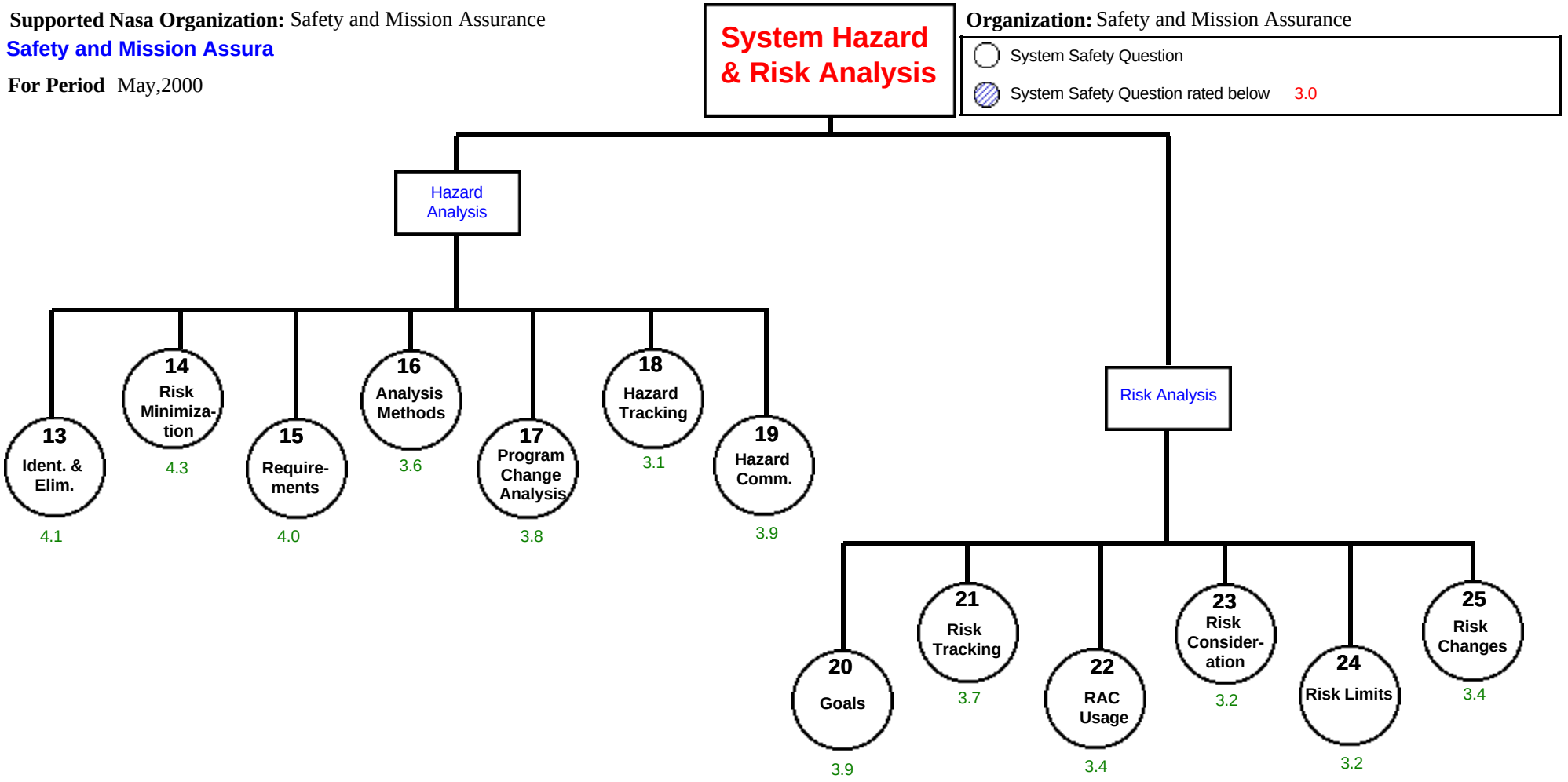
System Safety PEP MORT Chart

Saturday, July 01, 2000

Supported Nasa Organization: Safety and Mission Assurance

Safety and Mission Assura

For Period May,2000



System Safety PEP MORT Chart

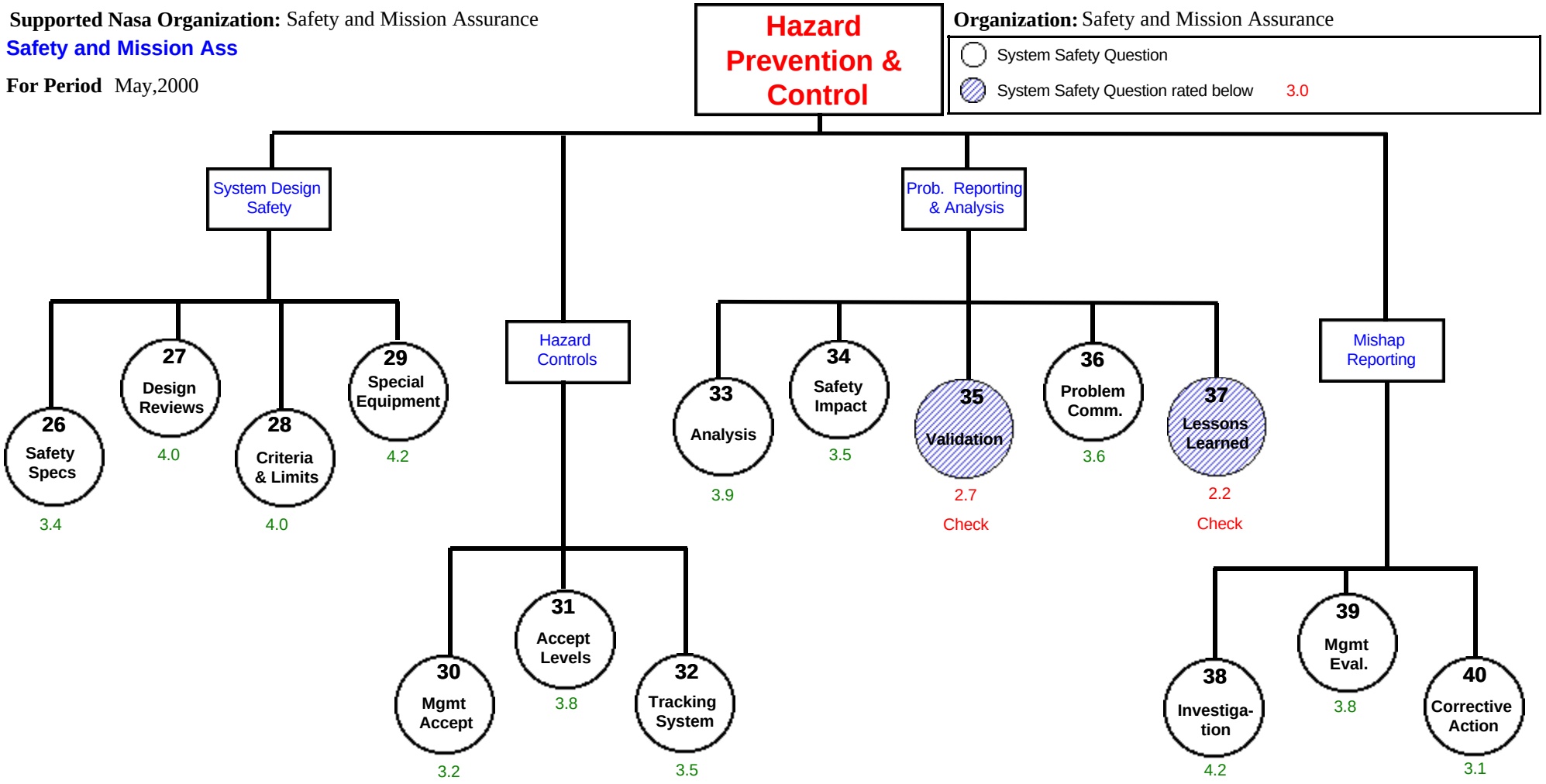
Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Safety and Mission Assurance

Safety and Mission Ass

For Period May,2000



System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Safety and Mission Assurance

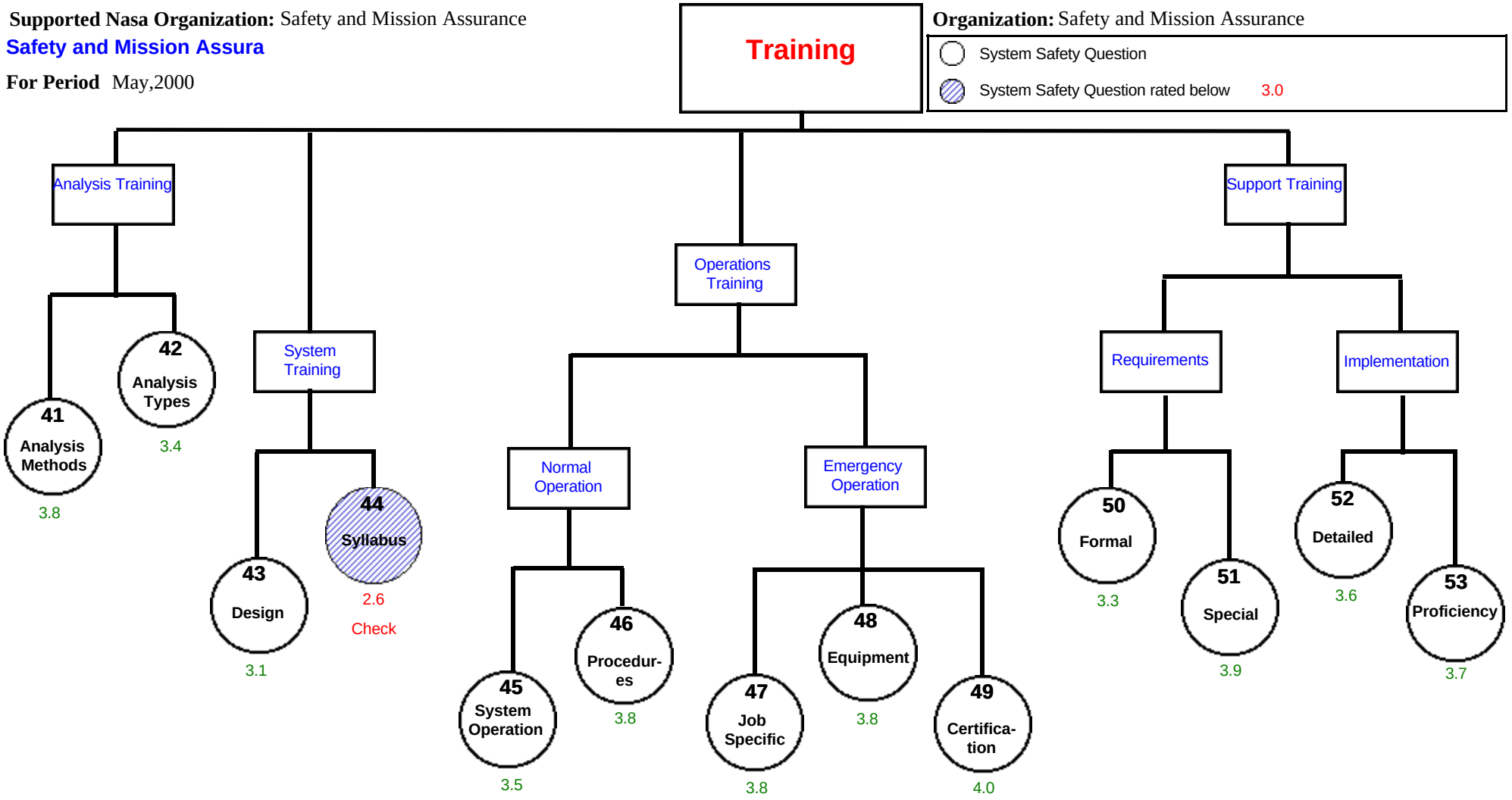
Safety and Mission Assura

For Period May,2000

Organization: Safety and Mission Assurance

System Safety Question

System Safety Question rated below 3.0



System Safety Get Well Plan

Marshall Space Flight Center

For Period
May,2000

Supported Nasa Organization: Safety and Mission Assurance

Organization: Safety and Mission Assurance

Safety and Mission Assurance

Recommendations for improvement on your existing Safety and Health Program for

Questions rated below 3.0

HAZARD PREVENTION AND CONTROL

PROBLEM REPORTING AND ANALYSIS

Q 35 - Risk Assessment Code (RAC) levels assigned to hazards should be validated with actual data, where possible.

Q 37 - (NPG 8715, para. 3.5.1.5)(MIL-STD 882C, para. 4.2.i) The NASA Lessons Learned Information System should be used to provide lessons learned information and analysis.

TRAINING

SYSTEM TRAINING

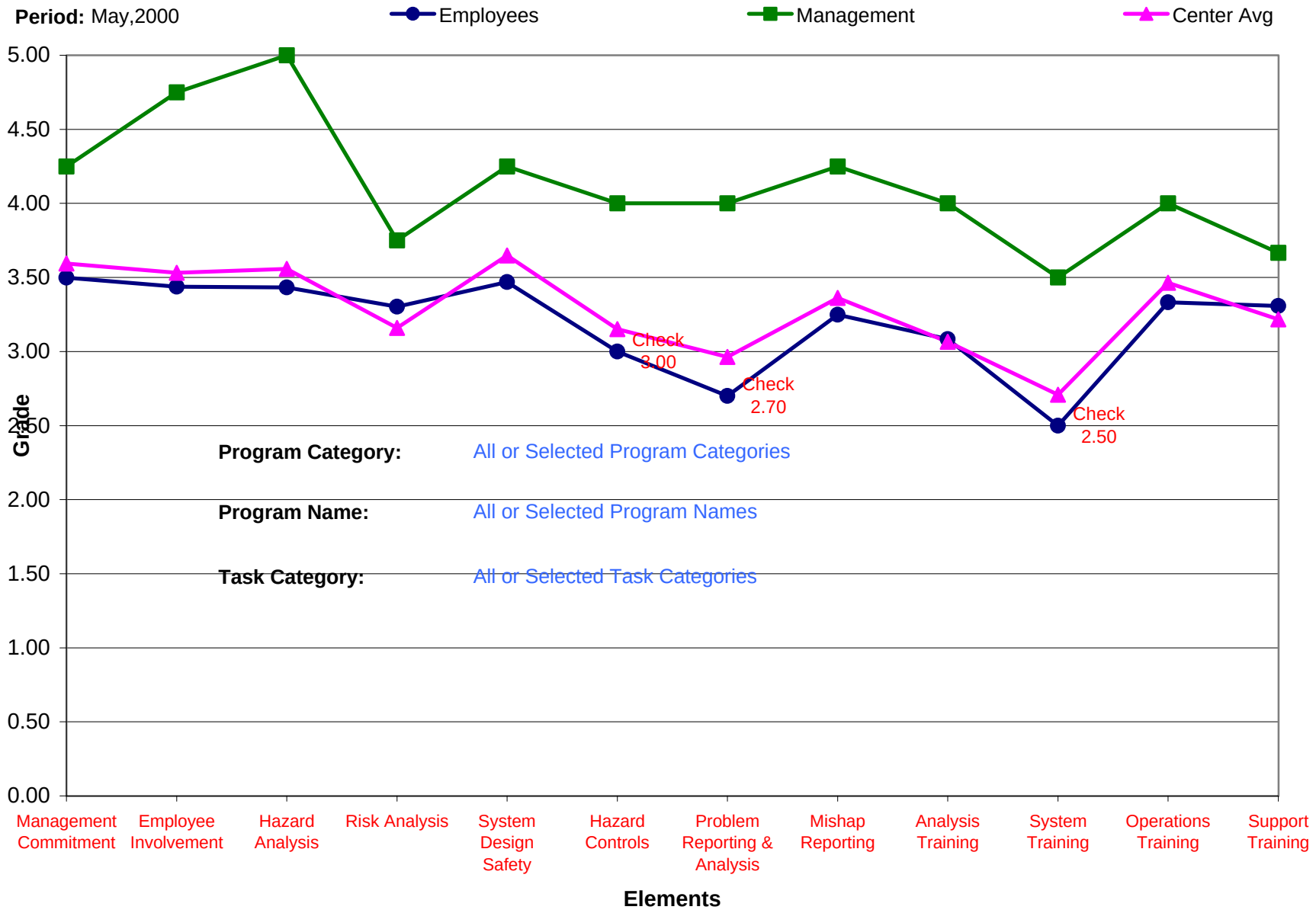
Q 44 - (NPG 8715, para. 4.5) Identification and documentation of required training should be provided to all personnel.

System Safety Employee - Management for Marshall Space Flight Center

Nasa Organization: Space Transportation Directorate

Organization: Space Transportation Directorate

Period: May,2000



System Safety Performance Evaluation Profile (PEP) Scoreboard for Employees

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Space Transportation Directorate

PEP Score for Employees	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Space Transportation Directorate	3.5	3.4	3.4	3.3	3.5	3.0	2.7	3.2	3.1	2.5	3.3	3.3
12 Element Avg.	**3.5**	**3.4**	**3.4**	**3.3**	**3.5**	**3.0**	**2.7**	**3.2**	**3.1**	**2.5**	**3.3**	**3.3**
4 Element Avg.		**3.5**		**3.4**				**3.1**				**3.1**
Overall Score	**3.3**											

By: Civil Service Only

System Safety Performance Evaluation Profile (PEP) Scoreboard for Management

Marshall Space Flight Center

Saturday, July 01, 2000

For Period May,2000 **Supported Nasa Organization:** Space Transportation Directorate

PEP Score for Manager	Management Leadership and Employee participation		Worksite Hazard Analysis		Hazard Prevention and Control				Safety Health Training			
	Management Commitment	Employee Involvement	Hazard Analysis	Risk Analysis	System Design Safety	Hazard Controls	Prob.Reporting & Analysis	Mishap Reporting	Analysis Training	System Training	Operations Training	Support Training
Space Transportation Directorate	4.3	4.8	5.0	3.8	4.3	4.0	4.0	4.3	4.0	3.5	4.0	3.7
12 Element Avg.	**4.3**	**4.8**	**5.0**	**3.8**	**4.3**	**4.0**	**4.0**	**4.3**	**4.0**	**3.5**	**4.0**	**3.7**
4 Element Avg.		**4.5**		**4.4**				**4.1**				**3.8**
Overall Score	**4.2**											

By: Civil Service Only

System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Space Transportation Directorate

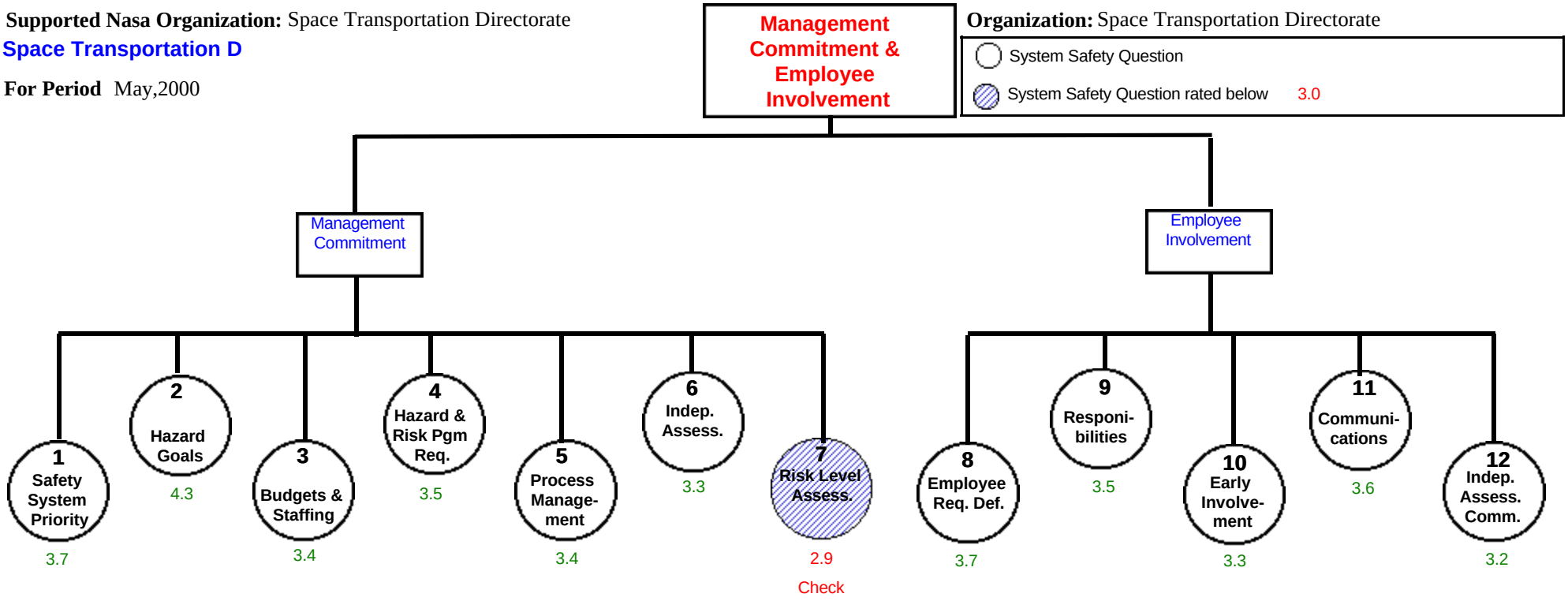
Space Transportation D

For Period May,2000

Organization: Space Transportation Directorate

System Safety Question

System Safety Question rated below 3.0



Marshall Space Flight Center

System Safety PEP MORT Chart

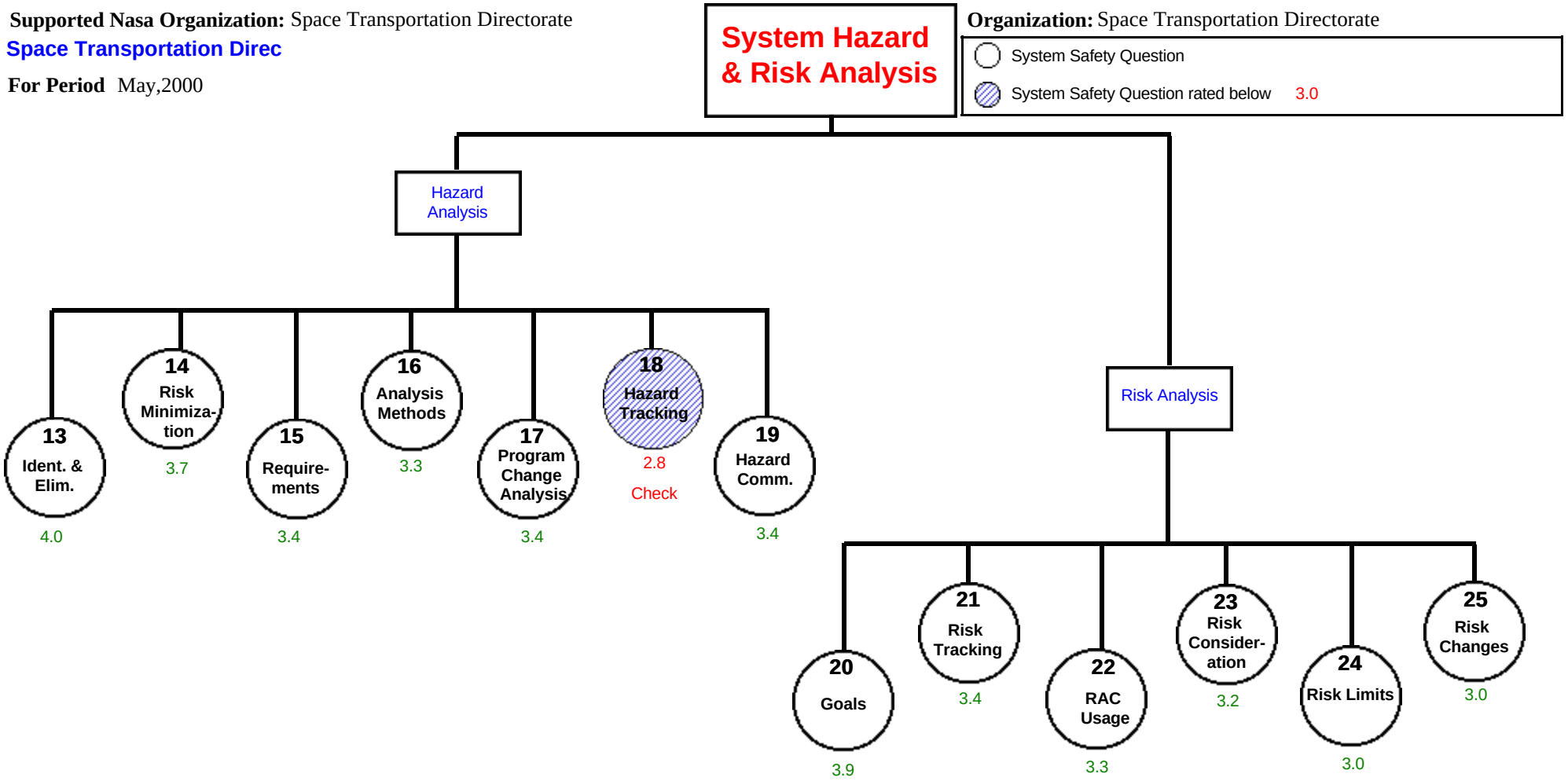
Saturday, July 01, 2000

Supported Nasa Organization: Space Transportation Directorate

Space Transportation Direc

For Period May,2000

Organization: Space Transportation Directorate



System Safety PEP MORT Chart

Marshall Space Flight Center

Saturday, July 01, 2000

Supported Nasa Organization: Space Transportation Directorate

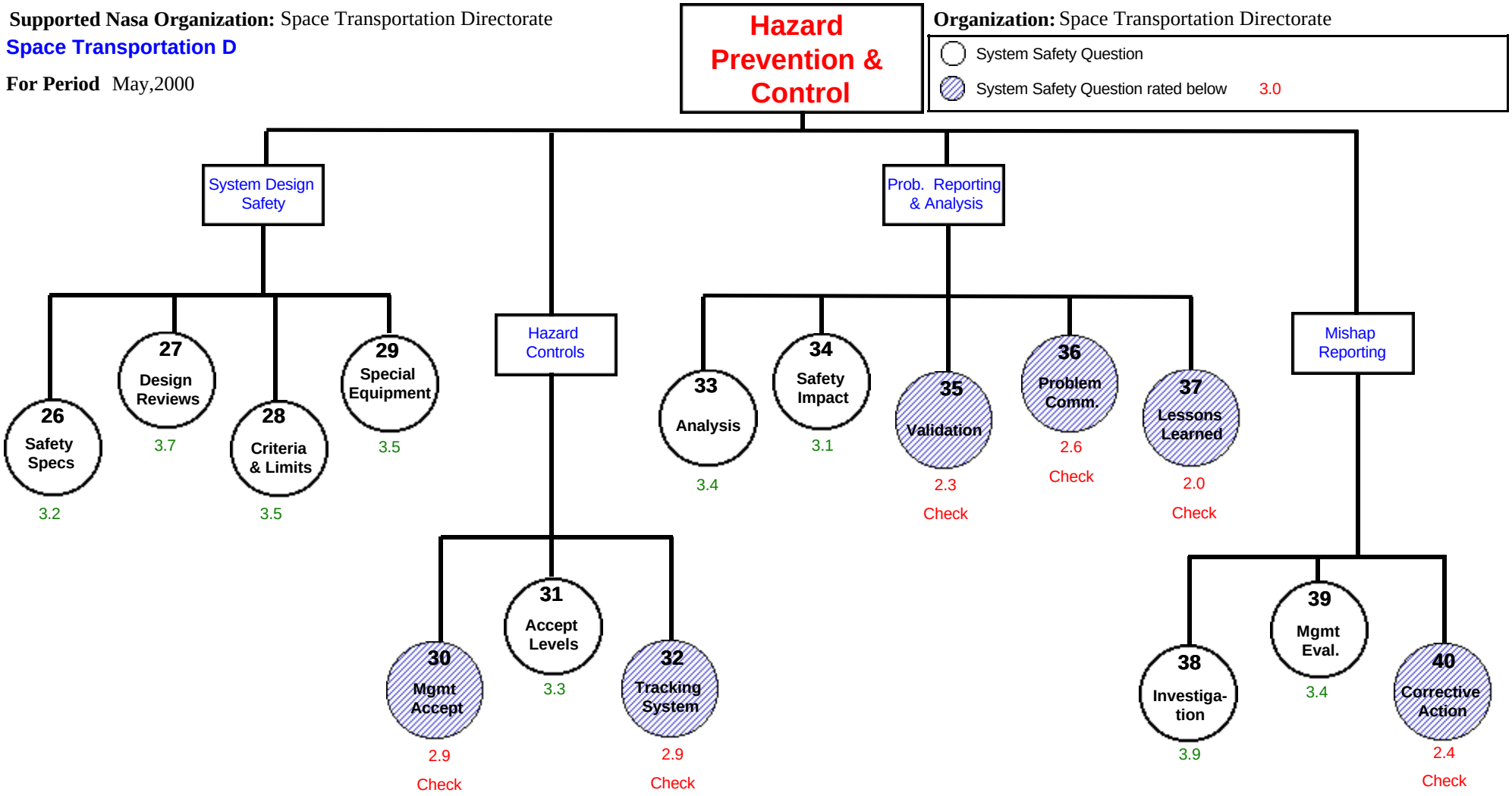
Space Transportation D

For Period May,2000

Organization: Space Transportation Directorate

System Safety Question

System Safety Question rated below 3.0



Marshall Space Flight Center

System Safety PEP MORT Chart

Saturday, July 01, 2000

Supported Nasa Organization: Space Transportation Directorate

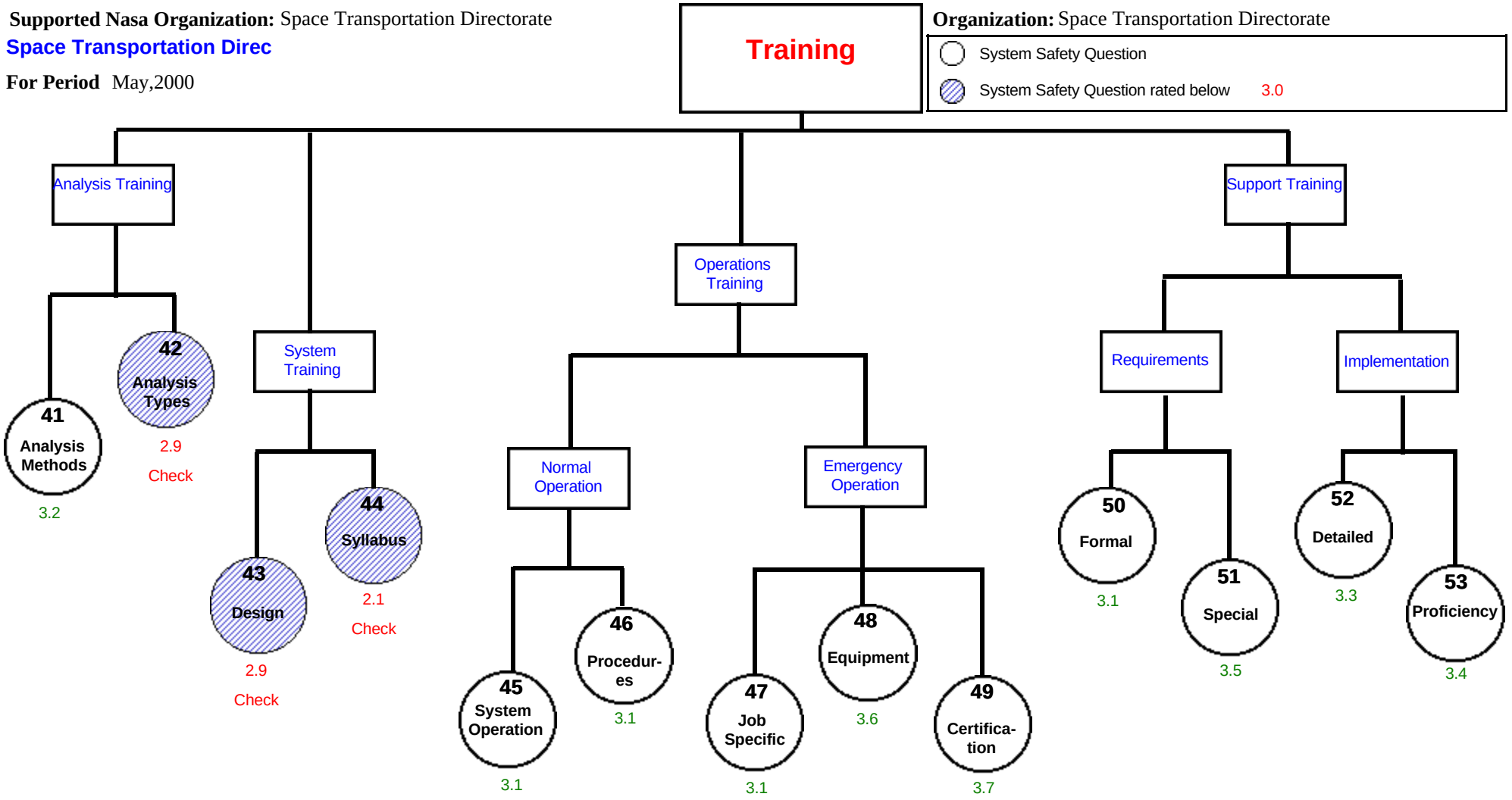
Space Transportation Direc

For Period May,2000

Organization: Space Transportation Directorate

System Safety Question

System Safety Question rated below 3.0



System Safety Get Well Plan

Marshall Space Flight Center

For Period
May,2000

Supported Nasa Organization: Space Transportation Directorate

Organization: Space Transportation Directorate

Space Transportation Directorate

Recommendations for improvement on your existing Safety and Health Program for

Questions rated below 3.0

MANAGEMENT COMMITMENT & EMPLOYEE INVOLVEMENT

MANAGEMENT COMMITMENT

Q 7 - (NPG 7120.5a, para. 1.3.d, & 4.2)(NPG 8715, para. 3.5.1.6) Decisions regarding acceptance of residual hazards shall be made only by program management and based on an assessment of the risk involved.

SYSTEM HAZARD AND RISK ANALYSIS

HAZARDS ANALYSIS

Q 18 - (NPG 8715, para. 3.5.2.6 & 3.10.1)(MIL-STD 882C, para. 4.2.b) Maintain an up-to-date database of identified hazards throughout the life of the program.

HAZARD PREVENTION AND CONTROL

HAZARD CONTROLS

Q 30 - (NPG 8715, para. 3.5.1.6)(MIL-STD 882C, para. 4.1.1) Acceptance of residual hazards and their associated controls shall be the responsibility of program management.

Q 32 - (NPG 8715, para. 3.5.1.6 & 3.5.2.6)(MIL-STD 882C, para. 4.2.6) An up-to-date database, containing all identified hazards and hazard controls, shall be maintained throughout the program life cycle.

PROBLEM REPORTING AND ANALYSIS

Q 35 - Risk Assessment Code (RAC) levels assigned to hazards should be validated with actual data, where possible.

Q 36 - (NPG 8715, para. 3.3.4 & 3.3.5) An up-to-date problem tracking system should be provided to track all program problems and to expedite problem resolution and close-out.

Q 37 - (NPG 8715, para. 3.5.1.5)(MIL-STD 882C, para. 4.2.i) The NASA Lessons Learned Information System should be used to provide lessons learned information and analysis.

MISHAP REPORTING

Q 40 - (NPG 8715, para. 3.3.4) A mishap reporting tracking system should be provided to track mishap histories and to expedite incorporation of corrective actions.

TRAINING

ANALYSIS TRAINING

Q 42 - (NPG 8715, para. 4.5)(NPD 1000.1) SMA management should support safety training and career development efforts.

SYSTEM TRAINING

Q 43 - (NPG 8715, para. 4.5) Program personnel should have sufficient training in system design and operation to allow an understanding of associated safety-related issues.

Q 44 - (NPG 8715, para. 4.5) Identification and documentation of required training should be provided to all personnel.